

Notice of Allowability

Application No.

10/773,336

Examiner

Kenneth J. Malkowski

Applicant(s)

MIYASITA, TOKIO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

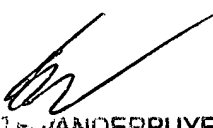
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 2/09/04.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.


KENNETH J. VANDERPUYE
SUPERVISORY PATENT EXAMINER

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In Claim 1 line 10, the word "a" had been replaced with the word -the-

In Claim 6 line 2, the word "an" has been replaced by the word -a-

In Claim 6 line 14, the word "a" had been replaced by the word -the-

1. Claims 1-20 are allowed. The following is an examiner's statement of reasons for allowance:

Reason for Allowance

2. With respect to independent claims 1 and 20 the prior art does not fairly teach the limitation of a driving apparatus for driving a light-emitting device comprising a light receiving device which receives light from the light emitting device to output a current signal followed by a current-to-voltage conversion section followed by an ac coupling amplifier and outputting an AC amplified signal followed by a differential output section for amplifying the AC amplified signal and outputting a positive and negative phase voltage signal followed by a first and second detecting circuits for detecting a peak value or bottom value of the positive phase voltage signal and a peak or bottom voltage of the negative phase voltage signal followed by a first reference voltage circuit feeding a first calculation section for adding an output of the first and second detecting circuits

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and for outputting a voltage depending on a difference between a result of the adding and the first reference voltage followed by a first DC current output section for outputting a first DC current depending on the calculation result followed by a pulse current output section and a bias current output section wherein the light emitting device transmits in dependence on the pulse current and bias current with all other limitations disclosed in said claims.

With respect to independent claims 2-6 the prior art does not fairly teach the limitation of a driving apparatus for driving a light-emitting device comprising a light receiving device which receives light from the light emitting device to output a current signal followed by a current-to-voltage conversion section followed by a differential output section for amplifying the input signal and outputting a positive and negative phase voltage signal followed by a first and second detecting circuits for detecting a peak value or bottom value of the positive phase voltage signal and a peak or bottom voltage of the negative phase voltage signal followed by a first reference voltage circuit feeding a first calculation section for adding an output of the first and second detecting circuits and for outputting a voltage depending on a difference between a result of the adding and the first reference voltage followed by a first DC current output section for outputting a first DC current depending on the calculation result followed by a pulse current output section and a bias current output section wherein the light emitting device transmits in dependence on the pulse current and bias current with all other limitations disclosed in said claims.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to increasing signal quality in photonic networks in general:

U.S. Patent No. 5,371,763 is cited to show a multiple peak detection circuit with differential amplification

U.S. Patent No. 5,065,456 is cited to show a method and system enhancing a transmitting LED through a feedback loop

U.S. Patent No. 5,612,810 is cited to show an optical receiving apparatus

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth J. Malkowski whose telephone number is (571) 272-5505. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KJM 3/2/07



KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER